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Testimony to the House Energy and Technology Committee
In Support of House Bills 4265 and 4266
By Granger

Chairman Horn and committee members, I would like to thank you for your consideration of House Bills 4265 and 4266 to ***increase*** renewable energy production in landfills from Michigan's waste resources. My name is Tonia Olson. I serve as director of governmental and community relations at Granger.

Background

In 1985, Granger was the first in the state to harness the power of landfills as a renewable source of energy. We recognize the value of this resource and work hard to take full advantage of its potential.

Recognizing the growing demand for renewable energy, in 2007, we began looking for additional opportunities to increase output; feedstock was an obvious option to explore. Our purpose from the beginning and continuing today is about producing ***more*** renewable energy.

Similar bills requesting an exemption not repeal of the yard waste ban, have received attention in the last two legislative sessions. The language of these bills has come a long way. The concerns expressed by all interests throughout this process have been considered in House Bills 4265 and 4266. Understanding that a one-size fits all approach is not our only option, this legislation promotes the opportunity for choice of management of yard clippings as dirt or power.

Meeting the Exemption Criteria

Michigan landfills are subject to numerous reporting and compliance regulations at the state and federal level.[1] This oversight provides protection of air quality, but does not prescribe how management is facilitated. The investment of converting landfill gas to an energy use is a costly, voluntary measure. House Bills 4265 and 4266 raise the bar for management of our Michigan landfill assets—to not only aggressively capture the gas but also put it to a productive use.

It is important to recognize the challenge of becoming a landfill energy production facility. The combination of the criteria will limit interest to serious landfill gas project developers. The legislation requires *(HB 4265, Page 4, and Lines 5-14):*

[1] The Michigan Air Emissions Reporting System (MAERS) subjects landfills to requirements to calculate and pay for emissions from the operations and ancillary sources. Landfills are subject to Part 55, Air Pollution Control, of the Natural Resources Environmental Protection Act (NREPA), PA 451 of 1994. This includes the Federal New Source Performance Standards (NSPS), Permit to Install (PTI), and Prevention of Significant Deterioration (PSD) rules. Michigan landfills are subject to control gas odors from migrating off-site, and to have a Renewable Operating Permit. Finally, landfills are required to report GHG emissions from their landfill and ancillary operations to the Environmental Protection Agency (EPA).

1. A gas collection system that is capable of recovering landfill gas from cells receiving yard clippings. Traditionally, landfill gas collection systems are installed after waste is in place. This is a change from standard operating practice as the collection system will need to be in place **before** yard waste can be accepted.

2. A performance standard of 70 percent. This creates a starting point based on best known data resulting in positive energy production and emission reductions.

3. A beneficial end use. Not only will the facility be responsible for 70 percent collection, but that full 70 percent must also be used as defined as an energy source. Many existing contracts for landfill gas use do not contemplate production growth.

If not properly managed, landfill gas, can result in air quality concerns. However, a collection efficiency of 70 percent does not necessarily mean 30 percent is emitted. An increase in collection efficiency as a condition for allowing yard waste disposal in a landfill will offset any increase in emissions. As collection efficiency increases, the proportion of gas collected increases and the proportion of gas emitted decreases. Additionally, other advanced management practices and oxidation of methane in soils contribute to reduced emissions.

Considerations Related to Composting

Composting in Michigan has been described as a developing industry. From the list of registered compost facilities[2] it appears that more than 70 of the sites are municipally operated, five are affiliated with landfill companies, and approximately 40 are private, commercial operations.

We understand the concerns of the composters. However, the conditions of the bills and the market do not project the outcomes they predict.

1. Nationally a majority of states, 27, do not ban yard waste from landfills. A quick review of the websites of a few of these states reveals that composting businesses are viable in states without a yard clippings ban. The most notable is California, which has no ban, but nearly 300 compost facilities. Two states, Nebraska and Florida, have done what you are considering and now allow for yard clippings in landfills when used for energy production.

2. The gate rate or tipping fee is what the customer pays at a facility for disposal. Published compost rates are half the amount of landfill rates—$5 per cubic yard for compost compared to more than $10 per cubic yard for landfill.[3]

[2] List of DNRE Registered Composting Facilities, January 31, 2011
[3] Granger's website: $10.10/CY for general trash and $10/CY for yard clippings. Websites of Spurt Industries in Zeeland and Tuthill Farms in South Lyons both indicated a charge of $5 per cubic yard for delivery of yard waste materials to their facilities.

3. In 2001, there were 225 communities with curbside yard waste collection programs[4]. Existing programs can continue under the language in the bills. There may be a shuffle of where yard waste is disposed, but compost facilities will have the opportunity to maintain their raw material stream.

   Page 5, lines 6-11, If the yard clippings are source separated and generated in a municipality with a single-hauler solid waste collection and disposal contract, the legislative body of the municipality shall not authorize the commingled collection of yard clippings for delivery to a landfill energy production facility unless the legislative body has held a public hearing on the issue.

Considerations Related to Jobs

The number one priority in Michigan is jobs. The intent of this legislation is to have a positive impact on renewable energy production—deemed a priority under P.A. 295. An additional benefit is economic development and jobs.

A report from the Institute for Local Self-Reliance has been referenced to imply there are more jobs in composting—four compost jobs for every one job related to trash going to a landfill. In evaluating this report more closely, you will find that the numbers are based on volume of material handled, specifically jobs per 10,000 tons per year. The annual volume of yard clippings[5] is estimated to be 370,000 tons, creating the need for about 148 jobs. Landfills in Michigan for the last nine years have collected more than 15.6 million tons of trash[6] annually, creating 1,560 jobs—more than 10 times the number of jobs for composting.

According to the Environmental Protection Agency[7], landfill gas projects have a substantial impact on economic growth. The increased production per facility from yard clippings is projected to be, on average, 2.2 megawatts.[8] Therefore, the economic and jobs benefit from yard waste alone per facility would include local investment of $1.4 million and a state-wide ripple effect from each project of nearly $4 million, as well as creation of more than five jobs in each location, with a state-wide impact of about 19 jobs. Remember, these are the types of benefits to be gained (on average) for each project simply from the addition of yard waste.

These are family-sustaining jobs for engineers, skilled trades, system operators, equipment suppliers, consultants, etc., from initial development through ongoing management. Ancillary jobs include professional drivers and landfill operating engineers who haul and handle the landfill gas-generating trash.

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[4] Michigan Recycling Coalition, Michigan Recycling Measurement Project: Annual Collection and Diversion of Municipal Solid Waste, 2001
[5] Legislative Analysis, Allow Yard Clippings in Designated Landfills, House Bill 4266, 2-21-11
[6] Department of Environmental Quality, Report of Solid Waste Landfilled in Michigan, 2009
[7] EPA LMOP, Green Power from Landfill Gas: Helping build a sustainable energy future while improving the environment, December 2010
[8] Examining Increased Renewable Energy Production from Landfill Gas in Michigan, June 2007 (with January 2008 addendum)

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Considerations Related to Environmental Benefits and Protection

The addition of yard waste improves overall gas production and stability of the waste pile. Furthermore, landfill gas is considered base load power, available 24/7/365. Energy from landfill gas can continue to be harvested for 20 to 30 years after the landfill closes.

The environmental benefits of landfill gas projects are real. According to the Environmental Protection Agency (EPA), for every three megawatts generated, enough energy is produced to power 1,900 average-sized homes. From the addition of yard waste alone, the average increased generation per landfill facility would be 2.2 megawatts[9] at peak—or power for nearly 1,400 households. Again, this is (on average) per facility, simply from the addition of yard waste.

Certainly the significance of this renewable energy source can be argued based on the comparison applied. To demonstrate the importance landfill gas projects can make, I would reference our partnership with the Lansing Board of Water and Light (LBWL). Our two Lansing area landfills transmit electricity to LBWL. Specifically, we provide 11.2 megawatts of capacity to power approximately 14,000 homes. This electricity amounts to slightly more than 5 percent of their retail sales. This is significant.

As with any environmental practice, problems in the compost industry must not be overlooked. The state has been working to enhance the regulatory requirements of these facilities. And states like California are evaluating the significance of volatile organic compound emissions from compost operations to determine if more controls are necessary.

Summary

It has been stated that yard clippings, indentified in this legislation to boost renewable energy production, are not trash and, therefore, should continue to be banned. This view contradicts the state solid waste policy adopted in 2007. This policy took the bold and forward thinking approach of recognizing waste as a resource to be utilized.

> *Michigan recognizes solid waste as a resource that should be managed to promote economic vitality, ecological integrity, and improved quality of life in a way that fosters sustainability.*

The advantage of House Bills 4265 and 4266 is that they allow for evaluation of need for each situation. Thanks to the advances in landfill management and landfill gas-to-energy technology, we now have this additional option for the management of yard waste. The reasons for the original ban, to conserve space and promote recycling, can be addressed by a landfill utilizing yard clippings for energy production—a new form of recycling.

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[9] Examining Increased Renewable Energy Production from Landfill Gas in Michigan, June 2007 (with January 2008 addendum)

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In the quest for an exemption, not a repeal of the landfill yard waste ban, we have intentionally avoided comparisons between landfills and compost operations. We believe these management practices can successfully co-exist. There are economic and environmental benefits to both handling options. There are also economic and environmental challenges to both handling options. The reality is that compost sites and landfills can responsibly process yard clippings into a beneficial product. The question is, on what product does the community place a higher value?

We encourage your support of House Bills 4265 and 4266 to allow an exemption to the existing yard waste ban to provide the choice for an energy production benefit. Communities would not be required to landfill yard waste. Landfills would not be required to seek the exemption. Residents could elect to utilize yard waste for composting or mix yard waste with trash to create energy. We ask you to allow a choice.